Algorithms in Diagnostic Molecular Parasitology

HANDS -ON LABORATORY WORKSHOP

APPLICATION & REGISTRATION

* FREE REGISTRATION

Application Deadline: April 30, 2015

- The preliminary application is to be completed online at https://www.surveymonkey.com/r/2015molecular
- If you are unable to complete the application online, notify Karen Ching at 404-498-6403 or email kching@cdc.gov.
- Only completed applications received by the deadline will be considered.
- Participants will be selected according to the applicants' job description, experience, and responsibilities.
- Notification of acceptance status will be sent via email by **May 12, 2015.**

FACULTY

Parasitic Diseases Branch, Division of Parasitic Diseases and Malaria, Center for Global Health, CDC, Atlanta, GA

Theresa Benedict, BS, Biologist

Henry Bishop, Microbiologist

Marcos E. de Almeida, PhD, Associate Service Fellow

Blaine Mathison, BS, **M (ASCP),** Microbiologist

Yvonne Qvarnstrom, PhD, Senior Service Fellow

Maniphet Xayavong, BA, Laboratory Technician

QUESTIONS

Please contact Karen Ching at 404-498-6403 or email kching@cdc.gov.

P.A.C.E. ® Course #: 288-014-15
Florida #: 20-494736

Sponsored by the Division of Parasitic Diseases and Malaria, and the Laboratory Training Branch, Centers for Disease Control and Prevention

August 24-27, 2015

DESCRIPTION

Certain aspects of parasitic agents present unique considerations for the use of polymerase chain reaction (PCR) for diagnostic parasitology. Techniques and processes that are successfully used to identify bacteria and viruses may not be applicable to parasites. In addition, the efficient use of molecular testing in diagnostic parasitology should be based on robust algorithms. This three and one-half day, hands-on laboratory workshop will provide the tools necessary to make evidence based decisions relative to implementing and performing molecular methods to diagnose parasitic diseases.

AUDIENCE

This beginners-level, hands-on workshop is intended for parasitologists, molecular biologists, or other professionals with some experience in performing PCR. Candidates for this class must currently perform diagnostic molecular techniques or be considering the implementation of diagnostic molecular parasitology in the future. Availability limited to 16 spaces.

LOCATION

Centers for Disease Control and Prevention, Atlanta, GA

OBJECTIVES

At the conclusion of this program, participants will be able to:

- Select algorithms for using molecular techniques in the parasitology laboratory for investigating and diagnosing parasitic diseases.
- Recognize the usefulness and limitations of different methods in diagnostic parasitology.
- Identify specimen preservatives and DNA extraction techniques suitable for diagnostic parasitology.
- Perform real-time PCR techniques for the detection of parasitic disease agents, including *Cyclospora cayetanensis, Entamoeba spp. Babesia microti, Leishmania* spp., *Trypanosoma cruzi*, and *Plasmodium* spp..

CONTINUING EDUCATION

The Centers for Disease Control and Prevention Laboratory Training Branch is approved as a provider of continuing education programs in the clinical laboratory sciences by the ASCLS P.A.C.E.® Program. This course is approved for **18.5** contact hours.

This course has been approved for **18.5** contact hours in the category of Microbiology/Mycology/Parasitology for Florida Laboratory Licensees.

CDC U.S. Department of Health and Human Services Centers for Disease Control and Prevention

laboratory training branch

DPDx Laboratory Identification of Parasites of Public Health Concern

Algorithms in Diagnostic Molecular Parasitology

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AGENDA

Monday, August 24

8:30 a.m.	Welcome and Course Overview
8:45 a.m.	Safety in the Training Lab
9:00 a.m.	Pre-Courses Test
9:45 a.m.	Break
10:00 a.m.	**Lecture:** Public Health Applications of Diagnostic Methods in Parasitology
10:30 a.m.	**Lecture:** Collection, Preservation, and DNA Extraction Methods
11:15 a.m.	Lunch (On your own)
12:30 p.m.	**Lecture:** Basic Principles of Real-time PCR
1:00 p.m.	**Lecture:** Algorithms Applied to the Diagnosis of Parasitic Diseases I
2:00 p.m.	**Laboratory:** Algorithms Applied to the Diagnosis of Parasitic Diseases I
3:00 p.m.	Break
3:15 p.m.	**Laboratory:** Algorithms Applied to the Diagnosis of Parasitic Diseases I (cont'd)
4:15 p.m.	**Lecture:** Question & Answer
4:30 p.m.	Adjourn

Tuesday, August 25

8:30 a.m.	**Lecture:** Algorithms Applied to the Diagnosis of Parasitic Diseases II
9:00 a.m.	**Laboratory:** Algorithms Applied to the Diagnosis of Parasitic Diseases II
9:45 a.m.	Break
10:00 a.m.	**Lecture:** Algorithms Applied to the Diagnosis of Parasitic Diseases III
10:30 a.m.	**Laboratory:** Algorithms Applied to the Diagnosis of Parasitic Diseases III
11:15 a.m.	Lunch (On your own)
12:30 p.m.	**Laboratory:** Algorithms Applied to the Diagnosis of Parasitic Diseases III (cont'd)
1:15 p.m.	**Lecture:** Algorithms Applied to the Diagnosis of Parasitic Diseases IV
2:15 p.m.	Break
2:30 p.m.	**Laboratory:** Algorithms Applied to the Diagnosis of Parasitic Diseases IV
3:15 p.m.	**Lecture:** Algorithms Applied to the Diagnosis of Parasitic Diseases V
4:15 p.m.	**Lecture:** Question & Answer
4:30 p.m.	Adjourn

Wednesday, August 26

8:30 a.m.	**Laboratory:** Algorithms Applied to the Diagnosis of Parasitic Diseases V
9:15 a.m.	Break
9:30 a.m.	**Lecture:** Algorithms Applied to the Diagnosis of Parasitic Diseases VI
10:30 a.m.	**Laboratory:** Algorithms Applied to the Diagnosis of Parasitic Diseases VI
11:15 a.m.	Lunch (On your own)
12:30 p.m.	**Group discussion:** Analysis & Discussion of Real-time PCR Results
2:30 p.m.	Break
2:45 p.m.	**Group discussion:** Analysis & Discussion of Real-time PCR Results
4:30 p.m.	Adjourn

Thursday, August 27

8:30 a.m.	**Group discussion:** Analysis & Discussion of Real-time PCR Results
9:45 a.m.	Break
10:00 a.m.	**Lecture:** Implementation & Troubleshooting of PCR in Diagnostic Parasitology
10:30 a.m.	**Lecture:** Question & Answer
10:45 a.m.	Post-Course Test
11:30 a.m.	Evaluation
12:00 p.m.	Adjourn

SECURITY CLEARANCE REQUIREMENTS

NON-US CITIZENS - This course will be held at the training laboratory on the CDC Roybal campus. Due to CDC requirements for security clearance, all non-US citizens will be asked to provide information needed to obtain clearance. Detailed instructions will be provided upon acceptance into the course. Please do not make any nonrefundable travel plans until you have received confirmation of acceptance into the course and security clearance approval. The information you provide will only be used for the purposes of attending this course.

US CITIZENS - If you are a US citizen, there is no extra clearance process required.

SPECIAL NEEDS

In compliance with the Americans with Disabilities Act (ADA), individuals seeking special accommodations should submit their request in writing to rbandea@cdc.gov or phone 404-639-4554 at least three weeks before the program. Please allow sufficient time for CDC to make arrangements which is normally at least three weeks prior to the start date of course.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention